BRC-300/BRC-300P

3CCD Color Video Camera

SONY

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THE NEW WAY OF BUSINESS℠

Sony's new BRC-300 is a revolutionary all-in-one compact robotic color video camera system, specially designed for remote video shooting applications. The BRC-300 incorporates three 1/4.7-type Advanced HAD™ CCDs, that provide high-quality and high-resolution images in both 4:3 and 16:9 modes.

With its high-accuracy and wide-range Pan/Tilt/Zoom capability, the BRC-300 precisely captures the right points of the viewable area surrounding the camera to meet your needs. You can also easily operate the camera with Sony's optional RM-BR300 Remote Control Unit, which is equipped with an ergonomic joystick, and feature-rich control panel. And when used with optional BRBK-303 Optical Multiplex Card and BRU-300 Optical Multiplex Unit, the BRC-300 is capable of being controlled from a long distance with a single fiber optic cable connection.

The BRC-300 also comes equipped with a card slot that accepts optional interface cards, enabling the camera to be integrated into every kind of system from S-Video to RGB, i.LINK® DV interface, SDI or even fiber. In addition, two remote control interfaces (VISCA™ protocol) are available to provide additional expandability and flexibility for your remote shooting applications.

With a number of convenient features such as its E:Flip function for desktop or ceiling mount flexibility, and its compact body, the BRC-300 is ideal for use in a wide range of remote shooting applications such as houses of worship, distance learning, corporate training, high-end videoconference, event shooting, and cable TV broadcasting. Utilizing the optional BRC-SDP12 outdoor weatherproof housing, the BRC-300 is ideal for traffic and weather cam applications as well.

Note: In this brochure, "BRC-300" refers to both the BRC-300 (NTSC model) and the BRC-300P (PAL model), and "BRU-300" refers to both the BRU-300 (NTSC model) and the BRU-300P (PAL model).

MAIN FEATURES

Superb Picture Quality

The BRC-300 incorporates three 1/4.7-type Advanced HAD CCD sensors with a total of 1,070,000 pixels. This camera delivers outstanding picture quality with high resolution and accurate color reproduction. Featuring Sony's Advanced HAD technology that produces images with low noise, the BRC-300 is ideal in low illuminated shooting environments or when shooting dark subjects.

High-performance Sony Pan/Tilt/Zoom Mechanism

The BRC-300 covers a wide shooting range with its highly accurate Pan/Tilt mechanism. It has one of the widest ranges in its class: a pan range of 340 degrees, and a tilt range of 120 degrees. The 340-degree pan range can be covered in 8 seconds, while the 120-degree tilt range can be covered in 4.5 seconds.
With its newly developed Pan/Tilt mechanism, the BRC-300 can capture not only fast moving objects, but also slow moving objects without vibration.
What's more, the BRC-300 incorporates a 12x optical auto-focus zoom lens, allowing for a zoom capability of up to 48x when used in combination with its 4x digital zoom.

Precision 16:9 technology

The BRC-300 captures images in both 4:3 and 16:9 aspect ratios, and with its 3 CCD technology, is able to achieve a wide angle of view in the 16:9 mode.
Due to the greater number of pixels used in the 16:9 aspect ratio, the BRC-300 generates extremely high-resolution images as compared to conventional cameras.

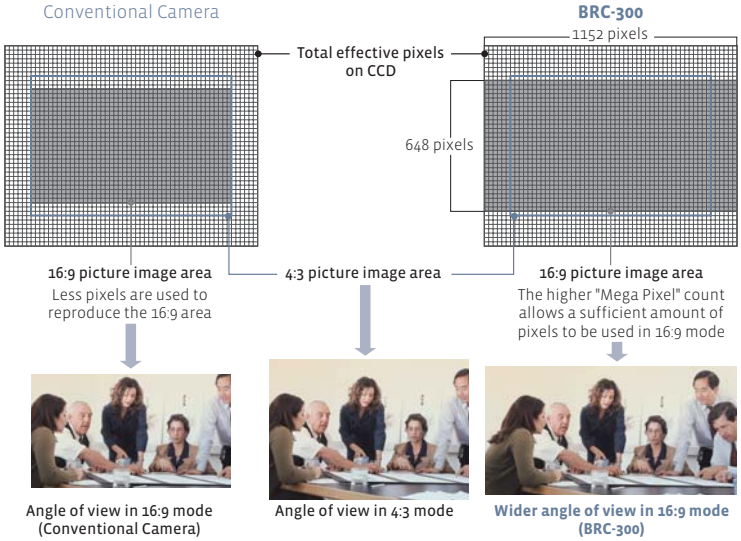

Conventional Camera
BRC-300
1152 pixels
Total effective pixels on CCD
648 pixels
16:9 picture image area
Less pixels are used to reproduce the 16:9 area
4:3 picture image area
16:9 picture image area
The higher "Mega Pixel" count allows a sufficient amount of pixels to be used in 16:9 mode
Angle of view in 16:9 mode (Conventional Camera)
Angle of view in 4:3 mode
Wider angle of view in 16:9 mode (BRC-300)

Fig. 1 16:9 aspect ratio

RS-232C/RS-422 Remote control (VISCA protocol)

The BRC-300 can be controlled by external devices such as the optional RM-BR300 Remote Control Unit thanks to Sony's well-known VISCA protocol. All local controls such as Pan/Tilt/Zoom, camera settings, and six presets can be easily accessed, and up to seven cameras can be daisy-chained and controlled by the RM-BR300 Remote Control Unit.

Versatile Video Outputs

The BRC-300 can be used with a range of versatile optional interface cards allowing for flexible analog and digital system configurations. Choose from the following interface cards to configure your individual requirements:

- Analog RGB/Component: BRBK-301*
- SDI: BRBK-302*
- DV i.LINK interface: BRBK-304
- Fiber Optic: BRBK-303 (for use in conjunction with BRU-300 Optical Multiplex Unit only)

Thanks to these convenient options, the BRC-300 truly functions as an all-in-one, compact robotic camera.

* Can be installed into the both BRC-300 and BRU-300

OTHER CONVENIENT FEATURES

Ceiling or Desktop Mount Installation

Thanks to Sony's E:Flip function, the BRC-300 can be ceiling mounted using the supplied ceiling mount kit or can also be used on the desktop.

Six Presets

Various camera settings such as Pan/Tilt/Zoom and focus can be preset in up to six presets per camera.

Multi-Function IR Remote Commander® Unit

Basic camera settings such as Pan/Tilt/Zoom functions and six-preset patterns can be controlled from the supplied remote commander.

Ergonomically designed Remote Control Unit (RM-BR300)

All camera settings including the Pan/Tilt/Zoom function and six preset patterns can be controlled from the optional RM-BR300 Remote Control Unit. The ergonomic joystick design and feature-rich control panel provide superb operability in various remote-shooting applications.

Optical Multiplex Unit (BRU-300)

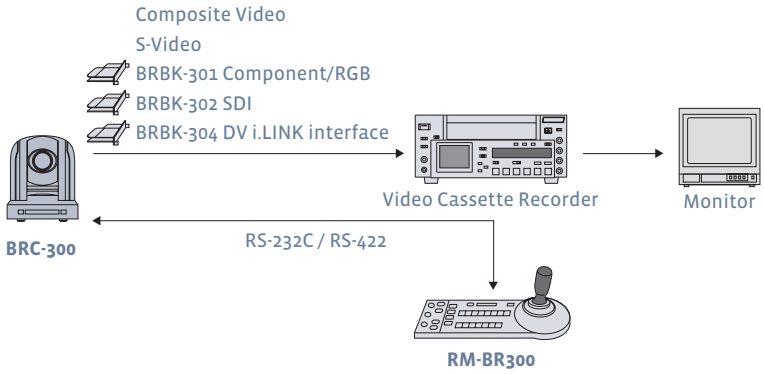
The optional BRU-300 Multiplex Unit receives and converts uncompressed digital raw data from the camera using the optional multiplex interface card into virtually any video output format. The unit has two built-in interface card slots and can be connected to the camera with a single fiber cable that extends up to 1,500 feet for easy installation. The BRU-300 also converts control data from the RM-BR300 to optical, and transmits this data to the camera.

BRC-300 and supplied IR Remote commander

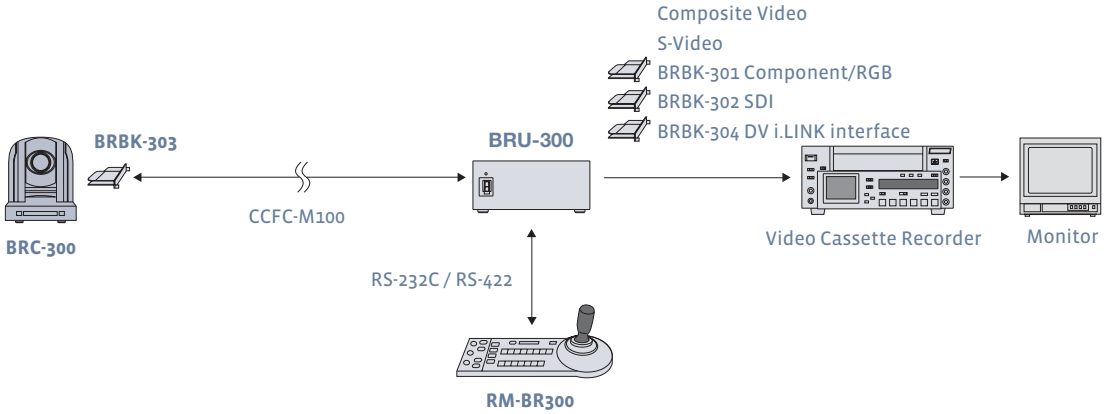
RM-BR300 control panel

SYSTEM CONFIGURATION

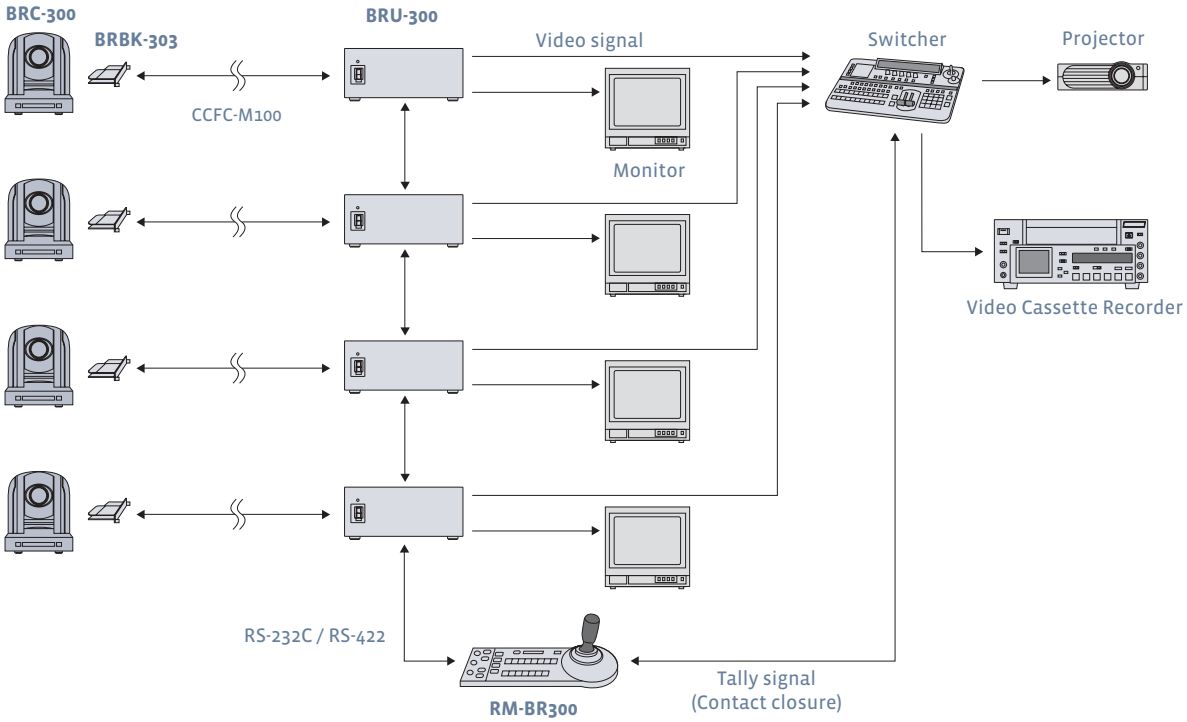
Short-distance operation



Long-distance operation



Multiple camera operation from a remote location



OPTIONAL ACCESSORIES

BRBK-301
Analog/RGB Component Card

BRBK-302
SDI Card

BRBK-303
Optical Multiplex Card

BRBK-304
DV i.LINK Interface Card

RM-BR300
Remote Control Unit

BRU-300
Optical Multiplex Unit

CCFC-M100
Optical Fiber Cable

CCMC-9DS
RGB/Component, Y/C Cable
(9-pin D-sub)

CCXC-9DBS/US
RGB/Component, VBS Cable
(9-pin D-sub)

VCL-0737W
Wide Conversion Lens

BRC-SDP12
Weatherproof Housing

REAR PANEL LAYOUT

BRC-300 rear panel with the optional BRBK-302

RM-BR300 rear panel

BRU-300 rear panel with the optional BRBK-301/BRBK-302

SPECIFICATIONS

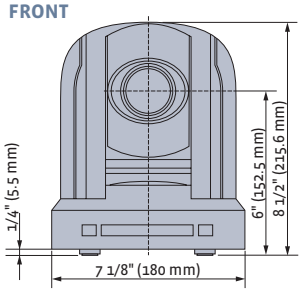
BRC-300 3CCD Color Video Camera		
Image device	Three 1/4.7 type IT Advanced HAD CCD (x3), 1070000 pixels (gross)	
CCD effective pixels	4:3 mode	960 (H) x 720 (V)
	16:9 mode	1,152 (H) x 648 (V)
Effective pixels	NTSC	768 (H) x 494 (V)
	PAL	752 (H) x 582 (V)
Signal systems	NTSC / PAL	
Horizontal resolution	4:3 mode	600 TV lines
Sync systems	Internal/External	
Lens	12x optical zoom, 48x with digital zoom	
Focal length	f = 3.6 to 43.2 mm (F1.6 to F2.8)	
Horizontal viewing angle	4:3 mode	3.3 (Tele end) to 37.8 degrees (Wide end)
	16:9 mode	4.0 (Tele end) to 45.4 degrees (Wide end)
Minimum object distance	300 mm (Wide end), 800 mm (Tele end)	
Pan/Tilt angle	-170 to +170 degrees (Pan), -30 to +90 degrees (Tilt)	
Pan/Tilt speed	0.25 to 60 degrees/s (Pan/Tilt)	
Minimum illumination	7 lx at F1.6	
S/N ratio	50 dB	
Shutter speed	NTSC	1/10000 to 1/4 s
	PAL	1/10000 to 1/3 s
Gain	Auto/Manual (-3 to 18 dB, 3 dB steps) switchable	
White balance	Auto, Indoor, Outdoor, One-push WB, Manual	
Preset positioning	6 positions	
Analog output	VBS (BNC), Y/C (4pin Mini DIN)	
Camera control interface	RS-232C (VISCA protocol) / RS-422 (VISCA protocol)	
Back-light compensation	On / Off	
Operating temperature	0 to 40 degrees (32 to 104 °F)	
Storage temperature	-20 to 60 degrees (-4 to 140 °F)	
Power requirement	DC 12 V	
Power consumption	21.6 W (without optional card)	
Dimensions (W x D x H)	7 1/8 x 8 1/8 x 8 3/8 inches (180 x 205 x 211 mm)	
Weight	5 lb 15 oz (2.7 kg)	
Supplied accessories	AC adaptor(1), IR remote commander(1), Terminal connector(1), AC adaptor cable(1), Ceiling bracket(2), Operating instructions(1)	

BRU-300 Optical Multiplex Unit	
Optical fiber	Multi mode, LC-type connector
Video output	VBS (BNC), Y/C (4-pin Mini DIN)
Camera control interface	RS-232C (VISCA protocol) / RS-422 (VISCA protoclol)
Sync systems	Internal/External
Card slots	2 slots: Analog RGB-Component card / SDI card / DV card
Operating temperature	0 to 40 degrees (32 to 104 °F)
Storage temperature	-20 to 60 degrees (-4 to 140 °F)
Power requirements	NTSC AC100 to 120 V, 50/60 Hz
	PAL AC220 to 240 V, 50/60 Hz
Power consumption	9 W (without optional cards)
Dimensions(WxHxD)	8 3/8 x 3 1/2 x 9 1/4 inches (212 x 88 x 233 mm)
Weight	5 lb 15 oz (2.7 kg)
Supplied accessories	AC power cable (1), Terminal connector (1), RS-232C cable (3 m, 8-pin Mini DIN) (1), Operating instructions (1)

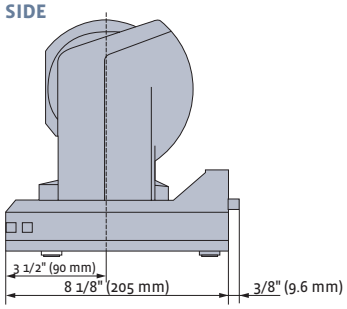
RM-BR300 Remote Control Unit	
Camera control interface	RS-232C (VISCA protocol) / RS-422 (VISCA protocol)
External control	Contact closure
Power requirement	DC 10.8 to 13.2 V
Power consumption	2.4 W
Dimensions (WxHxD)	15 1/2 x 7 3/8 x 5 3/4 inches (391.3 x 185 x 145.9 mm)
Weight	2 lb 1 oz (950 g)
Supplied accessories	AC adaptor (1), AC power cable (1), RS-232C cable (3 m, 8-pin Mini Din) (1), Terminal connector(2), Operating instructions (1)

BRC-300 Dimensions

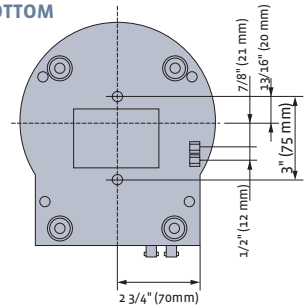
FRONT



SIDE



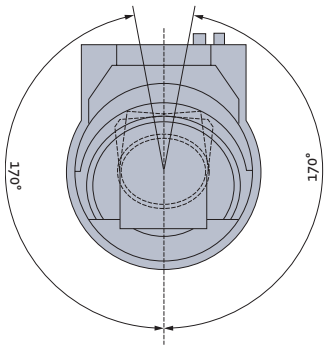
BOTTOM



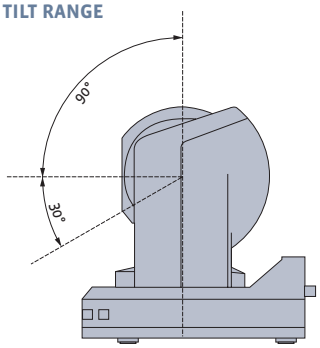
(Unit: inches/mm)

BRC-300 Pan/Tilt Range

PAN RANGE



TILT RANGE



SONY

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